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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,997	03/22/2004	Walter Siegl	015258-062500US	2176

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EXAMINER

DURHAM, NATHAN E

ART UNIT	PAPER NUMBER
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3765

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/806,997

Applicant(s)

SIEGL ET AL.

Examiner

Nathan E. Durham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “a head of the measuring device being arranged in the region of cloth take-off” (claim 3) and “a measuring head of the measuring device being arranged at the edge of the warp beam” (Claim 4) must be shown or the feature(s) canceled from the claim(s). The “two part warp beams”, “a plurality of measuring heads”, and “a control unit” (corresponding to claim 5) must also be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

10

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

15

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

20

The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

25

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

30

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

35

(a) TITLE OF THE INVENTION.

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(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: The specification is objected to because it fails to contain the proper format as provided in 37 CFR 1.779b). The applicant appears to have written the specification in an order corresponding to the sections as shown above, however, the applicant has not included section titles and minor formatting informalities.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 6, the applicant seems to be claiming a method with
5 corresponding method steps. However, claim 6 is dependent from claim 1 wherein claim 1 is considered an apparatus claim. Both an apparatus and a method cannot be claimed in a single set of depending claims, therefore it is unclear if the applicant is claiming an apparatus or a method. Claims 7-10 depend from claim 1 and also seem to be claiming a method, therefore claim 7-10 are also unclear and rejected under 35
10 U.S.C. 112, second paragraph.

Further regarding claim 9, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. The applicant's recitation "in particular a 1Hz filter" is considered indefinite because it is unclear what the phrase "in particular" means. Is the claimed filter a 1Hz
15 filter or is the filter only preferred to be a 1Hz filter? For the purpose of this Office Action, the phrase following "in particular" will not be considered part of the claimed invention.

Claim Rejections - 35 USC § 102

20 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5 Claims 1, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by TULLIS (U.S. Patent 6,118,132).

 Regarding claim 1, TULLIS discloses a measuring device (10) in which discrete signals can be produced at discrete points in time occurring in a periodic sequence, by means of positional determination of one or more identifiable points or positions which
10 are located on a moved surface (14) and within a two dimensional measuring window (area below measuring device) of the measuring device (Col. 5, Lines 22-38) (Col. 7, Lines 14-34). TULLIS discloses these signals being able to be evaluated for determining an interval which can be associated with the changes in position of the identifiable positions (Col. 5, Lines 22-38) (Col. 7, Lines 14-34). TULLIS discloses optical and
15 electronic components (35, 28, 34, 36, 37, 39, 24) being integrated in the measuring device for affecting a pattern recognition, in that the identifiable positions can be defined by the pattern recognition (Figures 6 and 7). TULLIS discloses the positions of at least some of these positions being determined at two sequential points in time of said sequence, in that the interval associated with the changes in position can be calculated
20 at each of the discrete points in time and thus the length of a path traveled by the moved surface and its speed can be determined at these points in time (Summary) (Col. 5, Lines 22-38) (Col. 7, Lines 14-34) (Abstract).

 Regarding claim 6, TULLIS discloses a method for operating the measuring device in that pattern recognition is carried for the identification of positions out on a
25 moved surface by means of an image sensor (24) (Fig. 6). TULLIS discloses the

positions of at least some of these positions are determined for a periodic sequence of discrete points in time at two sequential points in time and in that one interval associated with the changes in position is calculated at each of the discrete points in time (Summary) (Col. 5, Lines 22-38) (Col. 7, Lines 14-34) (Abstract).

5 Regarding claim 7, TULLIS discloses an image processor being used to produce quadrature signals corresponding to the changes in position wherein a length of a path traveled by the moved surface and its speed is determined at the discrete points in time from the quadrature signals by means of electronic calculation (Col. 6, Lines 16-37).

10 ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable
20 over TULLIS (U.S. Patent 6,118,132) in view of SCHAEFER (DE 19900581 A1).

Regarding claims 2-4, TULLIS discloses a measuring device that can determine the length of a path traveled by a moved surface and its speed as discussed above. However, TULLIS fails to disclose the moved surface being a warp thread for a weaving machine. TULLIS actually discloses that the moved surface can be any surface or web of material.

SCHAEFER teaches a measuring device for determining both a length traveled and speed of a thread in a textile process in order to detect deformities in a thread early during a textile process, thus saving time and money (Abstract). The applicant further states in the specification that it is commonly known in the art to determine the speed of
5 warp threads in a weaving machine by means of a correlation process as described in EP-A-1003579 (patent family of DE 19900581 A1) and by other means such as a three-point deflection process or a Doppler Effect process (First page of applicant's specification). Accordingly, it would have been obvious to one with ordinary skill in the art to use the measuring device of TULLIS wherein the moved surface is represented by
10 warp threads of a weaving machine in order to provide a device to detect deformities in a thread early during a textile process.

As discussed above, TULLIS in view of SCHAEFER teaches a measuring device for determining both a length traveled and speed of a thread in a weaving machine. However, TULLIS in view of SCHAEFER fails to teach the positioning of the measuring
15 device in the weaving machine. As discussed above, the purpose of having a measuring device that determines a length traveled and speed of a warp thread is to detect deformities in the thread so these deformities can be corrected at an earlier stage of a weaving process, thus saving time and money. It is well known to a person with ordinary skill in the art that similar and different thread deformities can appear in the
20 thread throughout the weaving process and these deformities must be corrected in different positions of the weaving machine. Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have provided the

measuring device of TULLIS in view of SCAEFER above the thread at different positions and between different components of a weaving machine (the specific types of components of a weaving machine are inherent) in order to detect deformities when they appear so the problems can be corrected before larger issues arise. In specific
5 regards to claim 2, an element can be considered any weaving machine component located near the measuring device such as a type of roller.

Claim 8 is rejected under 35 U.S.C. 103(a) for the same reasons as discussed above. The speed of the warp threads as discussed above is considered to be an intermediate speed.

10 Regarding claim 9, TULLIS discloses determining the mean speed of the moving surface with the use of a filter (Col. 6, Lines 51-54) (Col. 8, Lines 29-37). The filter as discussed in TULLIS is used to further improve detection of inherent structure-related properties, which aids in determining speed of the moving surface. It was determined to be obvious by TULLIS in view of SCAEFER for the moved surface to be warp threads
15 as discussed above. For future reference, SCHAEFER also discloses the use of a frequency filter (Abstract).

Regarding claim 10, TULLIS discloses that a reverse movement of the moved surface is compensated for without error by filtering and time synchronized sampling with the weaving machine cycle. The phrase "reverse movement" is considered to
20 mean a slowing movement, such as speed of a warp thread that is slowing down compared to the previous speed. The time-synchronized sampling of the measuring device is discussed above wherein positional determination of two points, at particular

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points in time, are determined for a warp thread. The filter as discussed in claim 9 aids in determining positional determination more accurately.

Allowable Subject Matter

5 Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10 The prior art made of record, as cited on attached PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan E. Durham whose telephone number is (571) 272-8642. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00
15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary L. Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10

NED



15

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